

### IN THE CLAIMS

Please amend the claims as indicated hereafter.

1. (Currently Amended) A communication device which communicates data in an asynchronous transfer mode (ATM) format comprising:

at least one buffer ~~(130, 158)~~ configured to receive data from a sending device ~~(52, 104)~~; and

a modulator/demodulator unit ~~(144, 150)~~ coupled to the buffer ~~(130, 158)~~ and configured to encapsulate at least one ATM cell ~~(176a)~~ into an ATM frame (170), the ATM cell ~~(176a)~~ having the received data, so that the ATM frame (170) is communicated onto a subscriber line ~~(18)~~,

such that the communicated ATM frame ~~(170)~~ has a variable transmission duration, the variable transmission duration corresponding to a number of ATM cells ~~(176a through 176n)~~ encapsulated into the ATM frame ~~(170)~~.

2. (Currently Amended) The communication device of claim 1, wherein the ATM frame ~~(170)~~ comprises a preamble (172), the preamble (172) having at least an address identifying a remote data terminal unit ~~(DTU-R, 100)~~, such that a selected one of a plurality of DTU-Rs ~~(100)~~ receives the communicated ATM frame ~~(170)~~ according to the address in the preamble (172).

3. (Currently Amended) The communication device of claim 1, wherein the modulator/demodulator unit ~~(144, 150)~~ is further configured to parse the received data into a plurality of data portions, and further configured to load information corresponding to each one of the plurality of data portions into a corresponding one of the ATM cells ~~(176a through 176n)~~.

4. (Currently Amended) The communication device of claim 1, further comprising a unique address identifying the communication device from a plurality of other communication devices coupled to the same subscriber line ~~(18)~~, such that when a poll ATM frame ~~(180, 186, 190 and 194)~~ having an address that corresponds to the unique address identifying the communication

device is received, the communication device communicates a response frame (~~182, 188, 192 and 196~~) having a duration of transmission that corresponds to the amount of data residing in the at least one buffer (~~130, 158~~).

5. (Currently Amended) A method for communicating data in an asynchronous transfer mode (ATM) format, the method comprising the steps of:

receiving data;

loading information corresponding to the received data into at least one ATM cell (~~176a~~) having a predefined size;

encapsulating the at least one ATM cell (~~176a~~) into an ATM frame (~~170~~); and

communicating the ATM frame (~~170~~) onto a subscriber line (~~18~~),

such that the communicated ATM frame (~~170~~) has a variable transmission duration, the variable transmission duration corresponding to a number of ATM cells (~~176a through 176n~~) encapsulated into the ATM frame (~~170~~).

6. (Currently Amended) The method of claim 5, wherein the step of encapsulating the at least one ATM cell (~~176a~~) into the ATM frame (~~170~~) further comprises the steps of:

encapsulating a preamble (~~172~~) into the ATM frame (~~170~~), the preamble (~~172~~) having at least an address identifying a remote data terminal unit (~~DTU-R, 100~~); and

communicating the ATM frame (~~170~~) to a selected one of a plurality of DTU-Rs (~~100~~) according to the address in the preamble (~~172~~).

7. (Currently Amended) The method of claim 5, wherein the step of loading information corresponding to the received data into the at least one ATM cell (~~176a~~) further comprises the steps of:

parsing the received data into a plurality of data portions having information corresponding to a respective portion of the received data; and

loading each one of the plurality of data portions into a corresponding one of the ATM cells (~~176a through 176n~~).

8. (Currently Amended) A method for adjusting a duration that an asynchronous transfer mode (ATM) frame (170) is transmitted over a subscriber line (18), the method comprising the steps of:

receiving data;

parsing the received data into a plurality of data portions having information corresponding to a respective portion of the received data, each one of the data portions configured to be loaded into one of a plurality of ATM cells (~~176a through 176n~~) having a predefined size;

loading each one of the data portions into a corresponding one of the plurality of ATM cells (~~176a through 176n~~) until all the data portions have been loaded;

generating the ATM frame (170) by encapsulating the plurality of ATM cells (~~176a through 176n~~) into the ATM frame (170); and

communicating the ATM frame (170) onto the subscriber line (18),  
such that the communicated ATM frame (170) has a variable transmission duration, the variable transmission duration corresponding to a number of the plurality of ATM cells (~~176a through 176n~~) encapsulated into the ATM frame (170).

9. (Currently Amended) The method of claim 8, further comprising the steps of:

defining a maximum number of ATM cells (~~176n~~) that can be encapsulated into the ATM frame (170);

loading each one of the ATM cells (~~176a through 176n~~) with one of the plurality of data portions until the last ATM cell (~~176n~~) is loaded; and

encapsulating the maximum number of loaded ATM cells (~~176a through 176n~~) into the ATM frame (170), such that remaining data is communicated at a later time in a subsequently generated ATM frame (170) such that a duration of transmission of the communicated ATM frame (170) corresponds to the maximum number of ATM cells (~~176a through 176n~~).

10. (Currently Amended) The method of claim 8, further comprising the steps of:

defining a maximum number of ATM cells (~~176n~~) that can be encapsulated into the ATM frame (170);

loading each one of the ATM cells (~~176a through 176n~~) with one of the plurality of data portions until all of the data portions are loaded; and

encapsulating only the loaded ATM cells (~~176a through 176n~~) into the ATM frame (~~170~~) such that a duration of transmission of the communicated ATM frame corresponds to the number of loaded ATM cells (~~176a through 176n~~).

11. (Currently Amended) The method of claim 8, further comprising the steps of:

communicating a poll ATM frame (~~180, 186, 190 and 194~~) having an address to a plurality of remote data terminal units (~~DTU-Rs, 100~~), each one of the DTU-Rs (~~100~~) identified by a unique address; and

receiving a response ATM frame (~~182, 188, 192 and 196~~) only from the DTU-R (~~100~~) having the unique address that corresponds to the address in the poll ATM frame (~~180, 186, 190 and 194~~).

12. (Currently Amended) The method of claim 8, further comprising the steps of:

receiving a poll ATM frame (~~180, 186, 190 and 194~~) having an address from a central office data terminal unit (~~DTU-C, 102~~) by one of a plurality of remote data terminal units (~~DTU-Rs, 100~~), each one of the DTU-Rs (~~100~~) identified by a unique address; and

communicating a response ATM frame (~~182, 188, 192 and 196~~) only by the DTU-R (~~100~~) having the unique address that corresponds to the address in the poll ATM frame (~~180, 186, 190 and 194~~).